

Geology of Iowa for Teachers Project

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8th Grade

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A) **Description:** My project is to collect sedimentary, metamorphic, and igneous rock specimens (naturally occurring and glacial erratics) found in Iowa for use in my 8th grade earth science classroom. The rocks I collect will be added to a collection that I have previously started.

B) **Objectives/Goals:** I will use this rock collection, in combination with rocks I have previously collected from Iowa, as a resource for teaching about different rock characteristics present in sedimentary, metamorphic, and igneous rocks.

C) **Implementation:** During our unit of study on earth's surface and geologic processes, I will have students study the rock cycle and specimens from each of the stages in the cycle. Students will compare and contrast the features of the three different types of rocks and determine what caused the different features in the rocks. For example, larger grains were formed in igneous rocks as liquid magma cooled slowly inside the earth's crust. Once students have had a chance to learn about differences in types of rock formation, they will be given a random rock specimen to identify as sedimentary, metamorphic, or igneous, and create a RAFT describing the rock in detail.

D) **Evaluation:** Students will each create a RAFT with the following criteria:

Role: A rock (identified as sedimentary, metamorphic, or igneous) attending the annual "Rock Cycle Rally" meet and greet session.

Audience: Other rocks at the "Rock Cycle Rally" meet and greet

Format: A speech

Topic: You will introduce yourself and provide the following information to your audience:

- 1: Your name (relate this to which type of rock you are (sed., ign. or meta) and your specific rock name (granite, limestone, etc.)
- 2: Where you were born (relate this to intrusive/extrusive and how/where you formed)
- 3: Some of the features that make you unique (describe specific characteristics you have as a sed., ign, or meta. rock and that identify you as your specific rock name)
- 4: Who you enjoy spending your free time with and how you met (describe what other rock types you might be found with and WHY; this should include specific rock names or general classifications of other rocks types)